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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

RONESI, VICKEY M

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1796

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/618,936	Applicant(s) BACHER ET AL.	
	Examiner VICKEY RONESI	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-7,10-17 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,10-17 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
2. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on 5/27/2008. In particular, claims 1 and 17 have been amended to have a range of amounts of the silane-containing, ethylenically unsaturated monomer to include 1 mol %. Thus, the following action is properly made final.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 4-7, 10-17, and 21-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claims 1 and 17, the endpoint of 1 mol % with respect to the amount of silane-containing, ethylenically unsaturated monomer fails to satisfy the written description requirement of 35 USC 112, first paragraph since there does not appear to be a written description requirement of the endpoint of 1 mol % in the application as originally filed, *In re*

Art Unit: 1796

Wright, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163. While there is support for an endpoint of 1.0 mol % on 7, line 2 of the specification, there is no support for 1 mol %.

With respect to claims 4-7, 10-16, and 21-23, they are rejected for being dependent on a rejected claim.

Claim Rejections - 35 USC § 103

4. Claims 1, 4-7, 10-17, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling et al (US 4,879,336) in view of Maruyama et al (US 4,617,239).

With respect to claims 1, 4-7, 10-17, and 21-23, the rejection is adequately set forth in paragraph 3 of Office action mailed on 1/31/2008 and is incorporated here by reference.

With respect to claim 23, Schilling et al teaches that the copolymer is present in an amount of 3-30 wt % (abstract) and that coating slips comprises pigment such as kaolin and calcium carbonate (col. 1, lines 11-13).

While Schilling et al teaches the use of a dispersing agent (col. 1, line 14), it fails to disclose whether it is cationic.

It is the examiner's position that the charge of a dispersant is controlled by the pH of the composition used. Therefore, it would have been obvious to one of ordinary skill in the art to utilize a positive charge on the dispersant and thus a cationic dispersant in a composition having basic properties.

Response to Arguments

5. Applicant's arguments filed 5/27/2008 have been fully considered but they are not persuasive. Specifically, applicant argues (A) that there is no motivation to combine Schilling et al with Maruyama et al to obtain the desired storage stability and abrasion resistance properties; (B) that the age of the cited references supports the patentability of the claimed subject matter; (C) that combining Schilling and Maruyama would eliminate the use of isopropenyl acetate as copolymer; (D) that one of ordinary skill in the art would not utilize isopropenyl acetate as a comonomer because of its considerable cost; (E) that Maruyama et al teaches gellation which is contrary to what Schilling et al teaches; and (F) that the instant claims are reasonably commensurate in scope with the data in the application as originally filed and in the declaration filed on 5/27/2008 to establish surprisingly and unexpectedly that the addition of 1-methylvinyl acetate comonomers to silane-containing polymers provides improved storage stability and abrasion resistance.

With respect to (A), Schilling et al and Maruyama et al are both to polyvinyl alcohol coating slip compositions. Maruyama et al teaches the benefits of using an ethylenically unsaturated silane-containing monomer such as improved water resistance, printability, surface strength, and barrier properties. Schilling et al is clearly open to the use of other monomers and hence one of ordinary skill in the art would be motivated to use such an advantageous monomer as taught by Maruyama et al to obtain said advantages. Although Schilling et al uses the alkylvinyl alcohol for other reasons (i.e., improvements on solubility and "pigment shock"), case law holds that it "does not alter the conclusion that its use in a prior art composition would have been *prima facie* obvious from the purpose disclosed in the reference." *In re Linter*, 458 F.2d

Art Unit: 1796

1013, 173 USPQ 560 (CCPA 1972). Furthermore, while Schilling et al does not teach improved storage stability as negligible increase in viscosity as apparently defined by applicant, Schilling et al teaches that its invention improves upon solubility which is an indicator of storage stability since precipitation out of solution is a type of storage instability.

With respect to argument (B), case law holds that contentions that the reference patents are old are not impressive absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).

With respect to argument (C), while Maruyama does not disclose a pigment shock problem, one of ordinary skill would not be motivated to remove the isoprenyl acetate from the copolymer of Schilling because the addition of isoprenyl acetate is the main thrust of Schilling's invention given that, without it, Schilling is not enabled. It is noted that Maruyama is used to supplement Schilling and not to take away from what Schilling already invented.

With respect to argument (D), case law holds that the fact that a combination would not be made by businessmen for economic reasons does not mean that a person of ordinary skill in the art would not make the combination because of some technological incompatibility. *In re Farrenkopf*, 713 F.2d 714, 219 USPQ 1 (Fed. Cir. 1983)

With respect to argument (E), Maruyama et al is used as a teaching reference regarding the desirable use of silane-containing, ethylenically unsaturated monomers in copolymers for paper slips. Therefore, even though Maruyama et al teaches gelling, this part of Maruyama et al's disclosure was not used in combination with Schilling et al to arrive at the present invention.

Art Unit: 1796

With respect to (F), the data in the specification as originally filed and in the declaration filed on 5/27/2008 cannot serve to establish unexpected or surprising results for several reasons.

First, the inventive example contains vinyl triethoxy silane for the “silane-containing, ethylenically unsaturated monomers.” Case law holds that evidence is insufficient to rebut a *prima facie* case if not commensurate in scope with the claimed invention. *In re Grasselli*, 713 F.2d 731, 741, 218 USPQ 769, 777 (Fed. Cir. 1983). While applicant contends that the use of one silane over another is equivalent, such has not been clearly shown on the record. Specifically, a silane-containing, ethylenically unsaturated monomer with heteroatoms as recited in claim 1 are not exemplified and it is not made clear how these monomers are obvious variants of vinyltriethoxysilane and vinylmethyldiethoxysilane.

Second, the relative amounts of monomer are not reasonably commensurate in scope with the scope of the claims. Case law holds that whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the “objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support.” In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range (i.e., scope). *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980), MPEP 716.02(d). Specifically, the amounts of 1-methylvinyl acetate (6.2 mol %) and silane-containing, ethylenically unsaturated monomer (0.33 mol %) are not reasonably commensurate in scope with 1-30 mol % and 0.1-1 mol %, respectively, of the instant claims.

Third, the inventive and comparative examples are not proper side-by-side examples because the relative amounts of comonomer are not given.

Art Unit: 1796

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 1796

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8/25/2008

Vickey Ronesi

/V. R./

Examiner, Art Unit 1796

/Vasu Jagannathan/

Supervisory Patent Examiner, Art Unit 1796